

Title (en)

CONTROL VALVE STRUCTURE, SWITCH, AND DISPENSING DEVICE

Title (de)

STEUERVENTILSTRUKTUR, SCHALTER UND ABGABEVORRICHTUNG

Title (fr)

STRUCTURE DE SOUPAPE DE COMMANDE, COMMUTATEUR ET DISPOSITIF DE DISTRIBUTION

Publication

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Application

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Abstract (en)

[origin: EP4350183A1] A control valve structure, comprises: a housing (101), a chamber (103) forming in an inside of the housing (101), and an opening (102) communicating with the chamber (103) being provided on the housing (101), wherein, a piston (104) is arranged in the chamber (103) and capable of telescopically moving relative to the opening (102), and a driving structure for driving the movement of the piston (104) is installed on the housing (101), and used to control a sealing structure on the piston (104) to close or open the opening (102) accordingly. Through the above arrangement, the opening is opened and closed by the movement of the piston. In the movement of the piston, the sealing structures on the piston is prevented from being contact with the inner wall of the housing of switcher, which avoids the deformation and failure of the sealing structures made of elastic materials such as rubber due to friction and compression with the inner wall of the housing of the switcher during the opening and closing process. In addition, the present invention further provides a dispensing device with the control valve structure, for controlling to open or close the waterway of the dispensing device.

IPC 8 full level

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Citation (search report)

- [X1] US 2015041006 A1 20150212 - MORISHITA TOMOYUKI [JP], et al
- [X1] WO 2020236872 A1 20201126 - NIKE INNOVATE CV [US], et al
- [X1] US 2007262278 A1 20071115 - FOX NIGEL P [GB]
- [X1] US 2539221 A 19510123 - BADEAUX JAMES H
- [I] US 5989425 A 19991123 - YONEZAWA YASUO [JP], et al
- See also references of WO 2022247530A1

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